

**An IEE** for consideration by the USAID Mission Environmental Officer  
C/o USAID Mali, Bamako, Mali

**KEY ACRONYMS USED IN THIS DOCUMENT INCLUDE THE FOLLOWING:**

**BEO:** BUREAU ENVIRONMENTAL OFFICER

**CS:** COOPERATING SPONSORS, HEREIN REPRESENTED BY THE CATHOLIC SERVICES (CRS), HELLEN KELLER INTERNATIONAL (HKI), AND SAVE THE CHILDREN

**ENA:** ESSENTIAL NUTRITION ACTIONS

**FFP:** FOOD FOR PEACE

**“HEARTH” MODEL:** NUTRITION IMPROVEMENT MODEL BASED ON POSITIVE DEVIANCE

**IR:** INTERMEDIARY RESULT (S)

**MEO:** MISSION ENVIRONMENTAL OFFICER

**SO:** STRATEGIC OBJECTIVE (S)

**SILC:** SAVINGS AND INTERNAL LENDING COMMUNITIES

**IEC:** “ INFORMATION EDUCATION COMMUNICATION”

**FY:** FISCAL YEAR

**Annex B.5**  
**TITLE II ENVIRONMENTAL COMPLIANCE**  
**FACESHEET**

Nema Program

Multi-Year Assistance Program Proposal  
2008-2013  
Catholic Relief Services/Mali Country Program

**Funding Period:** 2008-2013

**Resource Levels:** Commodities (dollar equivalent, including Monetization) =  
\$22,390,000. Total metric tonnage request = 22,390MT  
202(e) grant = \$3,979,900. ITSH = \$2,369,500

**Statement Prepared by:** Name: Joseph Sedgo, Ph.D. **Date:** December 10, 2007  
(modified based on FFP comments on May 9, 2008)  
Title: Regional Technical Advisor, CRS, West Africa Region

**IEE Amendment: (Y/N):**   N   **Date of original IEE:** December 10, 2007

**Environmental Media and/or Human Health Potentially Impacted** (check all that applies):

Air   ✓   Water   ✓   Land   ✓   Biodiversity   N   Human  
Health   ✓   Other        None   N  

**Environmental Action (s) Recommended** (check all that applies):

  ✓   1. **Categorical Exclusion (s)**

  ✓   2. **Initial Environmental Examination**

  ✓   **Negative Determination:** no significant adverse effects expected regarding the proposed activities, which are well defined over life of MYAP. IEE prepared:

       **without conditions** (no special mitigations measures needed; normal practices and engineering will be used)

  ✓   **with conditions** (special mitigations measures specified to prevent unintended impact)

       **Negative Determination:** no significant adverse effects expected but multiple sites and sub-activities are involved that are not yet fully defined or designed "Umbrella IEE" prepared (go to Annex B and Annex F for examples)

CRS/Mali  
Appen 5 CFMS IEE\_final

\_\_\_ Conditions agreed to regarding an appropriate process of environmental capacity building and screening, mitigation, and monitoring

\_\_\_ Positive Determination: IEE confirms potential for significant adverse effect of one or more activities. Appropriate environmental review needed/conducted.

\_\_\_ EA to be/being/has been (circle one) conducted/ Note that the activities affected cannot go forward until the EA is approved.

\_\_\_ **Deferral:** one or more elements not yet sufficiently defined to perform environmental analysis; activities will not be implemented until amended IEE is approved.

## SUMMARY OF FINDINGS

The following determinations are being recommended:

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c)(1) (i)...** *"having no adverse effect on the natural or physical environment"*

- Monetization of refined vegetable oil

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c)(2)(i)...** *"Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc)"*

- Training activities including farmers' field schools and marketing under the agro-enterprise component
- Adult functional literacy training
- Training in good governance practices
- Training of early warning groups
- The SILC component that deals with the training and establishment of savings and credit groups and the use of savings by the women to meet their household needs.

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c)(2)(iii)...** *"Analyses, studies, academic or research development workshops and meetings"*

- Feasibility studies pertaining to the irrigation of new agricultural perimeters, roads, and similar infrastructures

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2(c)(2)(viii)** *"Programs involving nutrition, health care or populations and family planning services except to the extent designed to include activities directly affecting the environment."*

- Safety net targeting and management

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c) (2) (xi)...** *"Programs of maternal or child feeding conducted under Title II of [Public Law] 480*

- Training of pregnant and lactating mothers, including Hearth, ENA, and feeding activities

**A Negative Determination with Conditions is recommended for the following activities, per 22 CFR 216.3 (a)(2) (iii)...** *"A negative determination will be recorded if the proposed activity will have no significant impact on the environment"*

- Monetization of crude oil, which has the potential of generating important by-products with waste disposal problems from refining
- The agro-enterprise component that deals with activities involving the use of tools/equipment for processing agriculture products as well as application of production techniques that might lead to some limited adverse impact on the environment (e.g., soil erosion, waste disposal problems)
- The household activities that deal with the construction of latrines, their maintenance/repairs, and upkeep of proper hygiene/sanitary conditions
- The FFW activities dealing with the rehabilitation of small rural feeder roads and water infrastructures (dykes, dams, low lands, old perimeters and the like)
- Activities dealing with the fixation/stabilization of sand dunes, reforestation activities, soil restoration activities, regeneration of natural pasture lands commonly referred to as "bourgoutieres".
- Activities pertaining to building new water conservation infrastructures (dykes, bunds, low lands)
- Activities pertaining to putting in place new irrigated perimeters and small rural feeder roads.

USAID APPROVAL OF ENVIRONMENT ACTION (S) RECOMMENDED:

Clearance:

Mission Director: Alex Norton Date: 7/15/08

Mission Environmental Officer: La Raye Nembelle Date: July 15, 08

or  
Regional Environmental Officer: \_\_\_\_\_ Date: \_\_\_\_\_

Regional FFP Officer: Zyly Date: 7/21/08

Agreement Officer: mm Date: 8-6-08

Concurrence:

DCHA Bureau Environmental Officer: Zyly Date: 8/6/08

Approved: ☒

Disapproved: ☐

## Annex B.5

### INITIAL ENVIRONMENTAL EXAMINATION (IEE)

#### **Program Data:**

MYAP: 2008-2013

Catholic Relief Services, Mali, West Africa Region

#### **1. Background and Activity Description**

##### **Background**

The Republic of Mali is among the poorest developing countries in the world and in sub-Saharan Africa in particular. It ranked 175<sup>th</sup> out of 177 countries in the UNDP 2006 Human Development Index. Mali has a surface area of 1.24 million square kilometers<sup>1</sup>, of which only 3.76% constitute the arable portion, hence implying that a large proportion of the territory (over 90%) is not suitable enough for promoting agriculture activities. Its current population as of July 2007 was estimated at 11,995,402 inhabitants<sup>2</sup> and among these more than 80% live in rural areas and depend primarily on agriculture for their livelihoods. Sustainable economic development which should enable the majority of the populations to meet their basic needs, such as food, shelter, clothing, education, health, etc. cannot, therefore, take place without significant improvement of the agriculture sector. The majority of farmers in Mali practice subsistence agriculture. Most of them work on marginal lands and/or soils which are degraded already. Most farmers have relatively limited access to knowledge about improved agricultural techniques. This, coupled with their extreme poverty, makes it difficult for them to apply and adopt improved agricultural practices that would maintain or improve the land's productive capacity.

Consequently, the majority of producers in Mali are extremely vulnerable to external shocks, such as drought, flooding, and locust invasions. In 2004-2005, the country was subjected to a serious drought/locust invasion that led to major crop failure in many areas. The regions of Mopti and Gao in particular were among the most affected. In light of this situation, CRS/Mali conducted a single-year-assistance program (SYAP) for the 2006/07 period in favor of the most vulnerable populations in the Douentza Circle of the Mopti Region and in the Gao Circle of the Gao Region. Thanks to such a timely response, many farmers in these regions were able to recover the productive assets they had lost, consumed or sold to survive more quickly. Earlier this year during July and August significant flooding occurred in some areas, followed by an abrupt drought during the critical crop maturation stage in September. This set of combined adverse events resulted in the loss of homes, household assets, stored food and standing crops for many households in affected areas.

It is against this backdrop that the current Multi-Year-Assistance Program Proposal (MYAP) is being submitted with a view of contributing to help restore and re-build the capacities for the thousands of vulnerable rural households in the affected areas. To this end, this MYAP is proposing to promote development activities that would primarily take up from where the

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<sup>1</sup> CIA-The world Fact book-Mali

<sup>2</sup> Ibid

SYAP left while at the same time seeking to work in a closer synergy with other key actors in the targeted areas. These actors in particular will include Helen Keller International (HKI) and Save the Children/US who have already agreed to form a joint working partnership/consortium with CRS. Such an approach is deemed appropriate, because it would enable a direct linkage/bridging between the emergency activities of the SYAP with more consistent development interventions anticipated to support the continued efforts of the affected populations during the five years period of 2008-2013. And in so doing, the project in particular hopes that these vulnerable rural households would be empowered enough to break off the vicious cycle of poverty and thereby engage in a real transformation/changing process of their livelihoods for the better.

The MYAP targets vulnerable populations in two of the most vulnerable Circles in Mali, Douentza Circle in the Mopti Region and Bourem Circle in the Gao Region. In these Circles, the MYAP will achieve three major strategic objectives as follows: 1) *Livelihood capacities of targeted households are protected and enhanced*; 2) *Human capabilities of targeted households are protected and enhanced* and 3) *Resiliency of targeted communities is protected and enhanced*. The section below describes in further detail the activities planned under each strategic objective.

### Description of Activities

*SO1: Livelihood capacities of targeted households are protected and enhanced*

**Under SO1, three major activities will be implemented as follows:**

**IR1.1: Producers manage sustainable agro-enterprises.** Most activities under this IR will consist of organizing farmers into functional working business groups and training them in various agro-enterprise development techniques in view of adding value to their production (crops, animals, or horticulture trees) for higher income generation and greater access to their basic needs, including food in particular. In addition, farmers will be provided with small grants in order to purchase tools/equipment required for developing greater value added to products at their level. Main topics/themes for the training and capacity building include the following: characterization of territories, identification of market opportunities, carrying out of market chain analysis, designing appropriate business plans, reducing post-harvest losses, improving the quality of commodities through better storage, sorting, cleaning, or packaging, and organizing the groups to achieve economies of scale. These trainings will be combined with functional literacy sessions to develop basic reading, writing, and computation skills for all interested group members.

Other key activities under this IR will consist of using the farmers' field school approach (FFS) to identify, test and transfer technologies to help farmers to adopt the best agronomic practices that will increase agricultural production and contribute to greater availability of both staple and high value crops. Under this approach, a group of lead-farmers will first be trained by identified experts in fields/topics of interest identified in a participatory manner with participant populations. Once they are trained, these lead-farmers will go back to their respective villages and establish demonstration plots for their peers to observe. Regular observation and training sessions will be held in the demonstration field. Successful techniques will thus be



diffused and more widely adopted. During this process, the project will ensure that the lead-farmers continue to receive appropriate support/mentoring in order to accomplish their role.

**IR1.2: Households manage their revenues more effectively.** The main purpose of this IR is to enable most vulnerable men and women to form self-help savings groups called SILC<sup>3</sup> on a voluntary basis. Once formed, each group will receive appropriate training to manage the group and to begin saving on a weekly basis for a period of twelve months. Through participation in this activity, the group members benefit from savings, which can be used for investing in any particular agro-business or other activity of their choice. More importantly, the savings can also serve to provide participants greater access to food, health care, and education. The group savings also provide an important buffer against the adverse impact of shocks. Access to greater savings and credit on a self-sustaining basis will; therefore, result in increased resiliency for group members compared to before the project.

*SO2: Human capabilities of targeted households are protected and enhanced*

Under SO2, the activities will be grouped under four IRs as follows:

**IR2.1. Caregivers of children under 5 and pregnant and lactating women apply improved nutrition and feeding practices.** Activities under this IR will consist of teaching caregivers proper techniques to prevent and treat acute malnutrition in their children, and in using the “Hearth” positive deviance model to promote best nutrition and feeding practices at the community level. Through these activities, malnutrition rates for children under 5 are likely to become less severe compared to before the project.

**IR2.2. Caregivers of children under 5 apply improved hygiene and sanitation practices.** The key activities will consist of training caregivers on improved hygiene and sanitation behaviors and on promoting the adoption of these practices. As both hygiene and sanitation conditions get better, food utilization is also likely to improve, contributing to improving overall health conditions, without which food security improvements will be difficult to achieve.

In addition, the program will equip volunteer households (2 in each targeted community) with toilet facilities while at the same time teaching them the best practices for maintaining satisfactory hygiene and sanitary conditions in the household environment. In so doing, this is likely to enhance a healthy learning environment for everyone in the village. But for this to happen, everyone in the household and the health committee of the village must be willing to actively participate and fully take responsibility.

*SO3: Resiliency of targeted communities is protected and enhanced*

Under SO3, most activities will be organized under two IRs as follows:

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<sup>3</sup> Savings and Internal Lending Communities (SILC)

**IR3.1 Communities implement local strategies to reduce the effects of shocks.** The activities under this IR will consist of using food-for-work (FFW) to promote the rehabilitation or construction of agro-pastoral infrastructures identified in Communal Food Security Plans developed under a previously funded USAID project PROMISAM. Important infrastructures worth considering in particular will include the following:

1) rehabilitation of water conservation infrastructures (dykes, bunds, low lands, irrigated perimeters); 2) fixation of sand dunes; and 3) development of new irrigated perimeters and small rural feeder roads. Besides these infrastructures, complementary activities, such as promoting of market gardening techniques will be considered, so as to enable the beneficiaries to produce sufficient high value crops for a relatively higher income generation.

In addition, the program will train early warning groups in each community that will monitor locally-defined trigger indicators of shocks. By so doing, communities will become more prepared to resist shocks.

**IR3.2 Institutions provide safety net services to the most vulnerable members in targeted communities.** Activities under this IR will consist of providing safety net services to the most extremely vulnerable 5% of members in each target community during the lean season. These beneficiaries will include those who can not participate in other project activities such as Food for Work due to their extreme vulnerability, such as the elderly, widows with orphans, physically handicapped, etc. To this end, those people with greatest needs will benefit from a free distribution of food rations as a way to help them maintain their human capacity and dignity under such difficult circumstances.

### **Purpose of the IEE**

The purpose of the IEE is to examine any potentially adverse environmental impacts that could arise from the proposed activities under the CRS/Mali's MYAP for 2008-2013. It provides a basis for a threshold decision as to whether an Environmental Assessment or Environmental Impact Statement would be required.

Adherence to the procedures in this IEE is not in lieu of any environmental assessment procedures required under Malian law; nor can adherence to Mali's environmental procedures be substituted for compliance with the procedures in this IEE. However, efforts will be made to ensure a maximum degree of compatibility between these two environmental impact assessment procedures.

## **2. Country and Environmental Information (Baseline Information)**

### **Locations Affected**

As noted above, the MYAP will cover two circles in two regions of Mali, Douentza Circle in the Mopti Region and Bourem Circle in the Gao Region. The main environmental factors likely to be affected during this project can be summarized as follows:

### 2.1.1 Douentza Circle

Douentza is in the north-eastern part of Mopti. It covers an area of 18,903 km<sup>2</sup> with a population size estimated as between 160,000 and 170,000 inhabitants. The population is comprised of several ethnic groups that include the Fulani, Dogons, Songhoïs, Bozos, Tuareg/ Bellas, and Bambara. Several among these groups practice a nomadic livelihood, which would explain the relatively low density estimated at 8.8 inhabitants per km<sup>2</sup>. In terms of gender distribution, official figures suggest a percentage split of about 51% for women versus 49% for men.

Douentza is characterized by a Sahelo-Saharan climate with highly variable temperatures that can range from 12 degrees Celsius during December-January to 40 Degrees Celsius in April-May. Rainfall is also highly variable and ranges from 300 mm to 500 mm per year. The topography equally varies from simple plains to plateaus and even cliffs.

Three distinct agro-ecologies commonly known as “Seno”, “Cliff”, and “Delta” zones, respectively are encountered in Douentza. The Seno zone encompasses the communes of Mondoro, Haire, Hombori and Dallah. Soils in this zone are predominantly sandy with pearl millet ranking on top of all staple crops. The Cliff zone in turn is characterized by the Bandiagara cliffs with pearl millet also being among the largest staple crops. Nevertheless, irrigated horticultural crops prevail in areas, such as Dangol-Boré, Douentza, Hairé, Hombori, Dallah, Pétaka, and Gandamia. The third zone or Delta-zone of the Niger includes parts of the communes of Diaptodji, Dangol Boré and Korarou. These areas are more humid with lush vegetation, including market gardening crops which often benefit from the overflows of the Niger River. Soils in this zone vary from loamy to loamy clay or clay. This Delta zone is particularly conducive for flooded-plains’ type of agriculture (recessional cropping).

Small ruminants, cattle, and donkeys are common in all these three agro-ecologies. But in addition, Seno is also known for raising camels, which play an important role (transport and plowing) in this relatively semi-arid environment. The main livelihoods in Douentza essentially consist of staple cropping, livestock rearing, and petty trade in all these three agro-ecologies. Nevertheless, market gardening and horticulture cropping including irrigated crops do also occur in the humid portions of the Cliffs and Delta zone.

Key environmental threats or issues worth considering in this circle include the high recurrence of drought in Seno as well as severe soil erosion and flooding for both the Cliff and Delta zones, respectively. Access to water in the Seno is also particularly challenging due to the very deep location of the water table. As a result, people frequently have to depend on non-potable water sources, which would explain why guinea worm is quite prevalent in this zone. Access to water is not as serious a problem for people living in both the Cliff and Delta zones, respectively. However, the high prevalence of water borne diseases, such as malaria and diarrhea, are of serious concern.

### 2.1.2 Bourem Circle

The Bourem Circle is situated in the north-western zone of the Gao Region. It is delimited to the south by the Gao Circle. This circle covers a surface area of 43,000 km<sup>2</sup> with a

population being estimated at 130,000 people. The average density is about 3 inhabitants per km<sup>2</sup>. The population encompasses several ethnic groups that include the Sonrhaj, Arabic, Tuareg, as well as Pular, Bambara, and Bozos. Gender distributions are estimated at 49 % for men versus 51% for women.

Bourem belongs to the Sahelo-Saharan climatic environment. The annual rainfall is about 150 mm per year whereas the mean temperatures fluctuate from 18 Degrees Celsius during the cold season to 46 Degrees Celsius from March to May. Topography for the most part is flat straddling over the Niger River and Tilemsi Valley. However, several rocky escarpments are encountered in the Tarkint and Téméra Communes. The vegetation essentially includes dwarf steppes, which are interspersed with diverse herbaceous biotypes and pasture lands.

Several soil types further characterize the physical environment. In the north and south areas mainly the sandy soils and sand dunes prevail. In the valley area, along the river bed one would encounter clays whereas sand appears to be predominant in the banks. In the Tilemsi Valley, mainly loamy to temporary water logging soils constitute the common feature.

Hydrographic sources include the Niger River as well as several seasonal “wadi” which are scattered throughout the circle.

Livelihood activities include crop production, animal husbandry, trade, fishing, and craftsmanship. Rice production, market gardening (e.g., tomatoes, squash, onions, and “Irish” potato) and tobacco constitute the main crops. In addition, recessional sorghum and millet are produced in the lowland and Gourma<sup>4</sup> areas respectively. However, local production seldom exceeds 4 months.

Animal husbandry, which constitutes a major source of livelihood for both the nomadic and sedentary groups, is practiced on cattle, camels, horses, donkeys, sheep, goats, and poultry. Fishing has become a specialized profession for both the Sorkos and Bozos along the Niger River.

Almost everyone is involved in trading although it is generally considered as a primary activity for both the Tuareg and Arabic groups. Craftsmanship is equally practiced throughout the circle and activities in this sector include basket making, weaving, tapestry, and tanneries. The “Garassa” group in this regard is particularly reputed for its unique crafting skills/know-how with wood and iron materials.

Key environmental threats or issues worth considering include wind/water erosion, sand storms, silting of rivers and streams as well as water borne diseases, such as malaria and bilharzia along the river banks.

### **National Environmental Policies and Procedures**

A national policy on environmental impact assessment exists in Mali. It was established in 2003 by a Presidential Decree referred to as “Decree No.03-594/P-RM of December 31, 2003”. This policy provides details regarding appropriate procedures and measures to be

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<sup>4</sup> “Gourma” means the right end side of the river

complied with during the implementation of any project or activity likely to have an adverse impact on the environment in Mali. In this context, environment is defined as anything pertaining to the biophysical factors of the milieu, that is, the human, fauna, flora, soil, water, air, climate or landscape components and their various interactions.

As stated in article 2, five primary objectives are being pursued through this policy as follows:

- To prevent the environmental degradation or deterioration of the living environment of targeted populations, due to implementation of project activities;
- To reduce and/or repair the damage inflicted to the environment by applying appropriate mitigation, compensation, or curative measures;
- To facilitate the optimization of necessary activities in view of creating an equilibrium/balance between the economic, social, and environmental aspects of development;
- To enable the participation of the targeted populations and concerned stakeholders during the various phases of a given project;
- And to provide necessary information for an informed decision-making during the project review/approval process

This policy further stipulates that, except for emergency situations, any project likely to have an adverse impact on the environment, cannot be undertaken in Mali without an environmental impact assessment review which has been duly approved by the Minister of Environment.

Clearly, the provisions stated in the environmental impact assessment policy in Mali are fully consistent with the USG's regulation 216 requirements. The consortium<sup>5</sup> will ensure that this MYAP --whose goal is to reduce food insecurity for the most vulnerable populations in Mali--is implemented in compliance with both the USG Regulation 216 requirements and existing national environmental policies which regulate the implementation of development projects in Mali.

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<sup>5</sup> Consortium here refers to the joint partnership established by CRS, HKI, and Save the Children in this MYAP project

### **3. Evaluation of activity/program issues with respect to environmental Impact potential**

#### **Introduction**

Most activities under this MYAP will consist of training activities, provision of technical assistance, as well as information/education/communication (IEC) initiatives in view of fostering a positive behaviour change among the targeted populations. However, the project will also include a number of activities that require consideration of monitoring and mitigation actions before during and after they are implemented, as well as some activities and that require a careful environmental consideration before being implemented. These essentially are as follows:

#### **Monetization**

This is a non-programmatic activity that consists of selling refined and crude degummed vegetable oil host country markets to generate the financial resources needed to support MYAP implementation. This activity is not expected to have any adverse impact on the environment. The only concern, relates to refining of crude oil that would take place at the wholesalers' level. The main issue is that, through the refining process, some waste disposal problems could occur unless appropriate measures are put in place. For instance, piling up of oil by-products has the potential to cause of water/sanitation problems, such as clogging of drains and contamination of water sources through waste and water run-off or infiltration processes. Appropriate mitigation measures should be considered along with the implementation of this activity.

#### **Activities under SO1**

The primary objective of this SO is to ensure that the livelihood capacities of the targeted populations are protected and enhanced. To this end, two intermediary results (IRs) or key activities are expected to take place. First, the majority of farmers in the targeted areas will receive various trainings in the areas of agro-enterprise development, marketing, functional literacy, good governance and improved crop production techniques. The training component will have no adverse impact on the environment. However, the application of such techniques by the farmers themselves on their own farms could lead to some minor adverse impact unless certain precautionary measures are put in place. For instance, poorly assimilated skills by some farmers could result in the wrong application of certain techniques, leading to some limited adverse impact, such as increased soil erosion, over-grazing, soil nutrient mining, or conflicts over land/water resources. In order to prevent such adverse impact, appropriate mitigation measures should be considered.

The second major activity or IR under this SO will consist of assisting women and men to organize into voluntary groups with a primary objective to initiate savings and lending activities commonly referred to as SILC (savings and internal lending community). Since this kind of activity generally takes place with only interested voluntary members in the community who know each other very well and appreciate one another, no particular problems are expected to occur. In fact, CRS's experience from the implementation of SILC in the Mopti region and in other parts of the world suggests that this kind of activity is

usually effective after just one year to enable most SILC members to undertake meaningful economic activities with significant benefits for their respective households.

### **Activities under SO2**

Three main activities are expected to occur under this SO. First IR 2.1 is meant to foster a positive behaviour change for pregnant and lactating mothers at the community level, using the Community-based Therapeutic Care, IEC and positive deviance “Hearth” model. The main purpose of this IR being that appropriate nutrition practices are learned and applied by the concerned mothers in view of improving their food utilization conditions for the better. This will also include some sensitization/ training in the form of IEC sessions with the community health workers (information, education, communication). Given that, no adverse impact on the environment is likely to occur, hence no particular mitigation measures in this case would be required.

Second, IR2.2 will consist of implementing a number of activities in view of improving hygiene and sanitation behavior and conditions in target households. The project will train local masons and provide a mechanism for the construction of a limited number of improved demonstration composting latrines at the level of individual households. Behavior change messages and activities will be used to teach appropriate hygiene and sanitation behaviors in the community through the village health committee. Appropriate mitigation measures for this IR will be required to ensure the proper siting of latrines (away from water sources as so as to avoid causing erosion) and their effective management.

### **Activities under SO3**

Most activities under this SO will consist of assisting the targeted communities toward improving their resilience in anticipation of future shock events. To this end, the program will train community groups to monitor locally-defined early warning indicators to better prepare for shocks. In addition, a number of food-for-work activities are being considered and would include the following: 1) promotion of market gardening crops; 2) rehabilitation of water conservation infrastructures (dykes, bunds, low lands, irrigated perimeters); 3) fixation of sand dunes; 4) development of new irrigated perimeters and small rural feeder roads.

While to some extent these activities should contribute to increasing food availability and more revenues for the targeted populations, leading to better food security conditions, it is equally true that the inappropriate application of certain techniques may also lead to environmental problems, negating the expected positive outcome. Such issues could include soil erosion, increased flooding at the downstream level, crop failures, as well as prevalence of water borne diseases, such as malaria, bilharzia, diarrhea, cholera, etc. Given that, well-thought mitigation measures should be considered prior to implementing most of the above referred activities.

With regard to the development of new water conservation infrastructures, irrigated agricultural perimeters and small rural feeder roads, although potentially adverse impacts are likely, it would be rather hard at this stage to predict their impact with precision, considering that not enough information is available yet. For instance, the exact locations of the sites, the

number of sites, along with the scope or scale of the activities are yet to be defined. Consequently, potential adverse impacts and appropriate mitigating measures, including design and implementation considerations should be considered and available environmental screening tools used to guide the review of these small scale projects as well as to flag if projects rise to a level of significance that requires an EA.

It is worth noting that the feasibility studies which are necessary prior to undertaking the construction of new irrigated perimeters and small rural feeder roads will have no adverse impact on the environment, however. In fact, carrying out such studies will be instrumental to assuring a better protection/preservation of the environment. Consequently, no particular mitigation measures would be required for all the activities pertaining to the feasibility component.

For a more detailed discussion of the proposed mitigation measures under each strategic objective and intermediary result, please, refer to the section below.

#### **4. Recommended mitigation actions (including monitoring and evaluation)**

##### **Recommended IEE determinations**

Based on the initial environmental examination and the need to ensure that most proposed activities under this MYAP won't have any significant adverse impact on the environment, including the welfare of the project beneficiaries, the following determinations are being recommended:

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c)(1) (i)...** *"having no adverse effect on the natural or physical environment"*

- Monetization of refined vegetable oil

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c)(2)(i)...** *"Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc)"*

- Training activities including farmers' field schools and marketing under the agro-enterprise component
- Adult functional literacy training
- Training in good governance practices
- Training of early warning groups
- The SILC component that deals with the training and establishment of savings and credit groups and the use of savings by the women to meet their household needs.

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c)(2)(iii)...** *"Analyses, studies, academic or research development workshops and meetings"*



- Feasibility studies pertaining to the irrigation of new perimeters, roads, and similar infrastructures

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**A Negative Determination with Conditions is recommended for the following activities, per 22 CFR 216.3 (a)(2) (iii)...** *“A negative determination will be recorded if the proposed activity will have no significant impact on the environment”*

- Monetization of crude oil, which has the potential of generating important by-products with waste disposal problems from refining
- The agro-enterprise component that deals with activities involving the use of tools/equipment for processing agriculture products as well as application of production techniques that might lead to some limited adverse impact on the environment (e.g., soil erosion, waste disposal problems)
- The household activities that deal with the construction of latrines, their maintenance/repairs, and upkeep of proper hygiene/sanitary conditions
- The FFW activities dealing with the rehabilitation of small rural feeder roads and water infrastructures (dykes, dams, low lands, old perimeters and the like)
- Activities dealing with the fixation/stabilization of sand dunes, reforestation activities, soil restoration activities, regeneration of natural pasture lands commonly referred to as “bourgoutieres”.
- Activities pertaining to building new water conservation infrastructures (dykes, bunds, low lands)
- Activities pertaining to putting in place new irrigated perimeters and small rural feeder roads.

### **Mitigation, monitoring, and evaluation**

During the MYAP mainly one category of activities would require particular mitigation, monitoring, and evaluation measures. This essentially includes those activities classified as **Negative Determinations with Conditions**. This section accordingly discusses these conditions and measures that ought to be in place in order to ensure a sound environmental quality of life throughout the MYAP project cycle.

Activities that are classified under this category include the following:

- Monetization of crude oil, which has the potential of generating important by-products with waste disposal problems from refining
- The agro-enterprise component that deals with activities involving the use of tools/equipment for processing agriculture products as well as application of production techniques that might lead to some limited adverse impact on the environment
- The households activities that deal with the construction of latrines
- The FFW activities dealing with the rehabilitation of small rural feeder roads and water infrastructures (dykes, dams, low lands, old perimeters and the like)
- Activities dealing with the fixation/stabilization of sand dunes, reforestation activities, soil restoration activities, regeneration of natural pasture lands commonly referred to as “bourgoutieres”.
- Activities pertaining to building new water conservation infrastructures (dykes, bunds, low lands)
- Activities pertaining to putting in place new irrigated perimeters and small rural feeder roads.

For those activities involving the monetization of crude oil, use of tools/equipment for agro-processing, application of improved crop production techniques, latrine construction and FFW road and infrastructure rehabilitation activities, the key mitigation measures that should be in place essentially will include sensitization, training, and follow up to ensure all recommended practices are implemented as needed. The CS will be responsible for selecting qualified trainers as well as monitoring them at the farmer, household (in the case of latrines), and community or work site level to ensure all proposed mitigation measures are properly complied with. For further details about these mitigations measures including the monitoring/evaluations indicators for each one of these activities, please, refer to the Table 4 below.

For activities dealing with natural resource management, mitigation amounts to applying known best practices. These best practices can be obtained from the Ministry of Agriculture, the National Research Institution commonly referred to as IER or Institut d'Economie Rurale, and in the USAID Environment Guidance for Small-Scale Agriculture Activities (EGSSA). Prior to implementing the MYAP, the consortium will make sure that these best practices are properly compiled, explained, and made available to every project manager for compliance. For the performance/monitoring indicators, please, refer to the Table 4 below.

For activities of households activities that deal with the construction of latrines,

- **Construction** will be supervised by qualified in-house sanitation manager.
- **Host-country public health service** should be involved to ensure proper sanitation measures are taken as per the national water and sanitation regulations.
- **Latrines will be constructed** no less than 5 meters from the house and no less than 10 meters from water sources.
- **Training to avoid** water accumulation and disease vectors should accompany every project.

- Each sanitation system should consider the **grey water** management methods.
- **Latrines will be individual and constructed at household** levels, group latrines tend to not be as efficiently and sustainably managed.
- **Training in use and maintenance** of latrines should be developed for all families participants in these activities.

Sanitation activities should be conducted in a manner consistent with the good design and implementation practices described in *EGSSAA Chapter 16: Water Supply and Sanitation* to help avoid numerous preventable problems. Another useful reference to consult for good water and sanitation design and implementation principles is the document, “Guidelines for the Development of Small Scale Rural Water Supply and Sanitation Projects in East Africa,” by Catholic Relief Services and USAID (Title II), August, 2005. For a compendium of humanitarian assistance expertise in 1) Hygiene Promotion, 2) Water Supply, 3) Excreta Disposal, 4) Vector Control, 5) Solid Waste Management and 6) Drainage, consult the Sphere Handbook (2004): Humanitarian Charter and Minimum Standards in Disaster Response, Chapter 2: Minimum Standards in Water Supply, Sanitation and Hygiene Promotion.

For the last 2 activities pertaining to building new water conservation infrastructures (dykes, bunds, low lands) and new irrigated perimeters and roads, the following mitigation measures/conditions will apply:

- Given that details about the proposed activities are not yet fully developed, the activities will be subjected to an environmental screening process intended to identify potential environmental problems, appropriate mitigation measures, and to trigger supplemental environmental review if appropriate. The process will follow the Environmental Screening Report format found in Part III, Chapter 6, Annex A of the Environmental Guidelines for Small-Scale Activities in Africa, 2nd Edition (EGSSA) (<http://www.encapafrika.org/egssaa.htm>).
- Mitigation measures and monitoring procedures identified during this review will be considered as requirements.
- Any activity identified as having potentially significant impacts will require an amendment to this IEE and no such activity will proceed until the amendment has been approved.

For all construction of infrastructure activities, the construction phase is simply the beginning of the intervention and without sound mechanisms in place for the operation and maintenance (O&M) the activity will not succeed. CRS will require community contributions, ensure sound design and construction standards, link to environmental standards, obtain land use rights up front, emphasize sustainability early & throughout project, include equitable transparent O&M mechanisms, and plan for access to finances for future repair needs as detailed in the study “Built to Last: A Sustainability Study of Food-for-Work Infrastructure Projects 1999-2004”, Mercy Corps, January 2005.

## 5. Summary of Findings

This IEE has been completed under the guidelines issued by USAID/BHR/FFP and Africa Bureau to Title II Cooperating Sponsors implementing the Multi-Years' Assistance Programs (MYAP) for compliance with the Regulations 216 requirements. This report accordingly presents the environmental impact assessment pertaining to all activities likely to be undertaken during the MYAP by these Cooperating Sponsors. Based on this review, including a review of field experience and the potential adverse impact from the proposed activities in line with the national environmental policy in Mali and USAID regulations, the following regulations are being recommended:

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 I (1) (i)...** *"having no adverse effect on the natural or physical environment"*

- Monetization of refined vegetable oil

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c)(2)(i)...** *"Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc)"*

- Training activities including farmers' field schools and marketing under the agro-enterprise component
- Adult functional literacy training
- Training in good governance practices
- Training of early warning groups
- The SILC component that deals with the training and establishment of savings and credit groups and the use of savings by the women to meet their household needs

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c)(2)(iii)...** *"Analyses, studies, academic or research development workshops and meetings"*

- Feasibility studies pertaining to the irrigation of new perimeters, roads, and similar infrastructures

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2(c)(2)(viii)** *"Programs involving nutrition, health care or populations and family planning services except to the extent designed to include activities directly affecting the environment."*

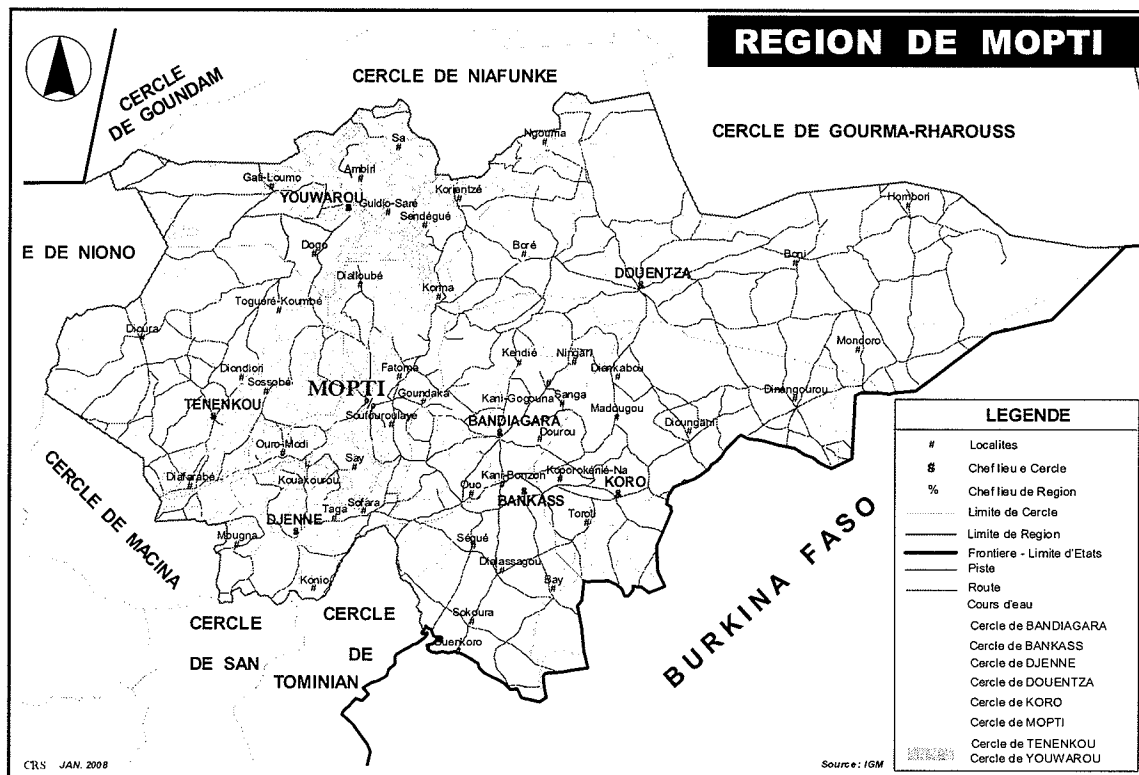
- Safety net targeting and management

**A Categorical Exclusion is recommended for the following activity, per 22 CFR 216.2 (c) (2) (xi)...** *"Programs of maternal or child feeding conducted under Title II of [Public Law] 480"*

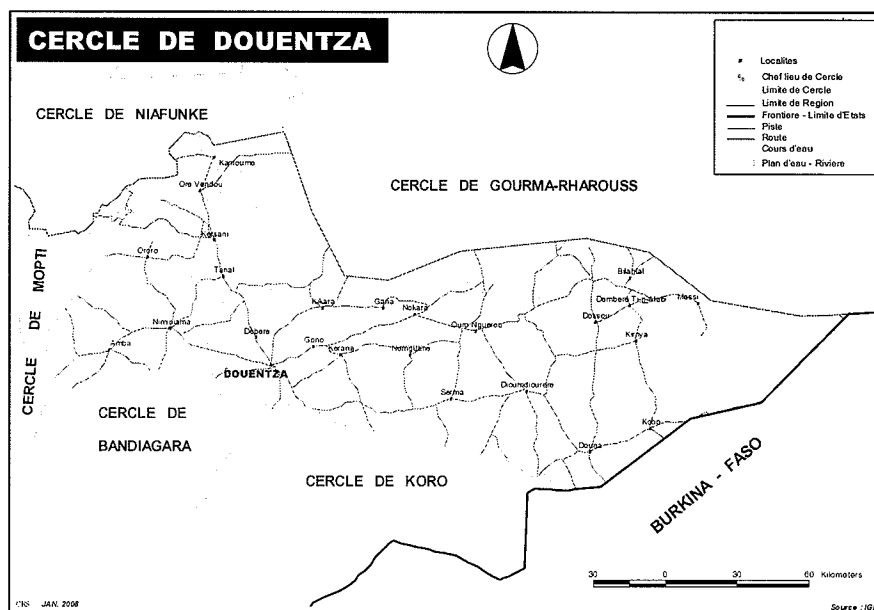
- Training of pregnant and lactating mothers, including Hearth, ENA, and feeding activities

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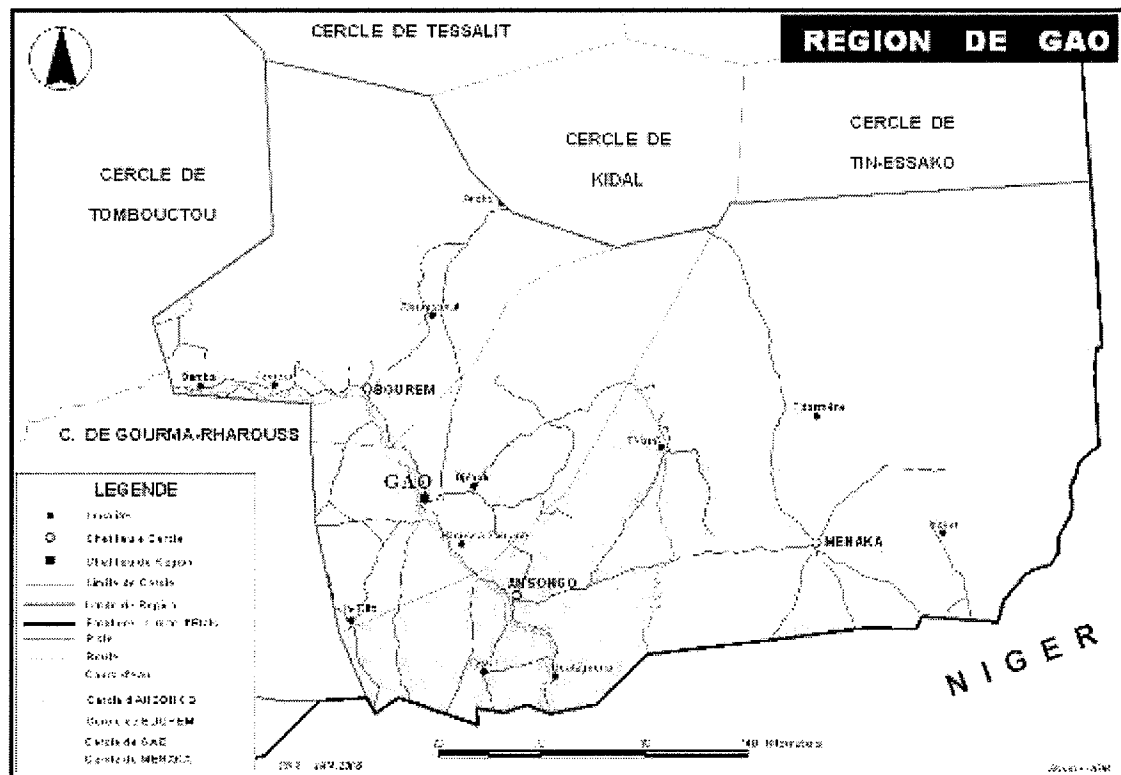
Map relative to Mopti Region and targeted circles



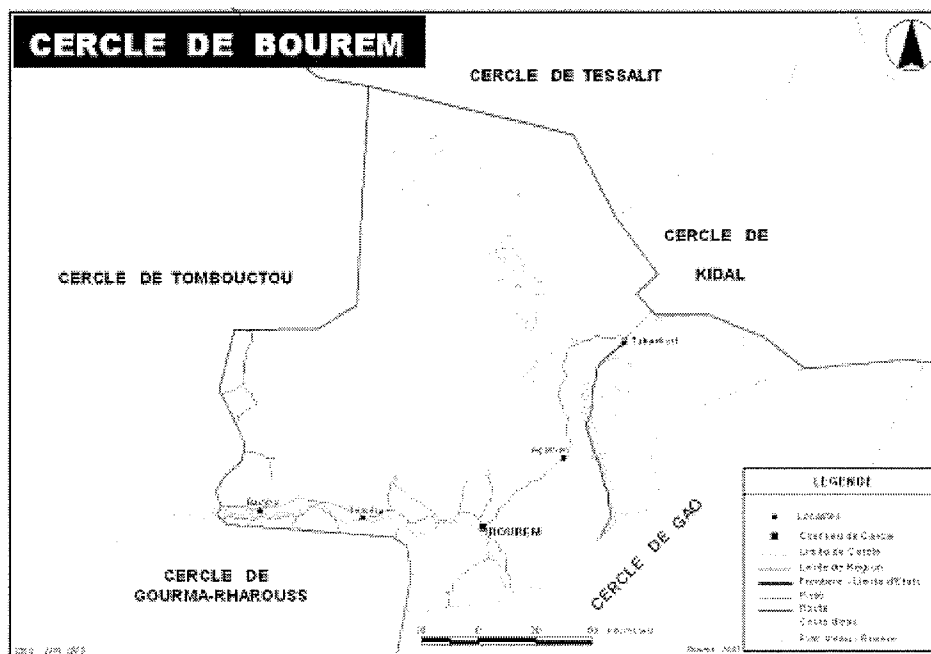
Map relative to Douentza circle



Map relative to Gao Region and targeted circles



Map relative to Bourem circle



## 7. Cited references

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U.S. Agency for International Development, AFR/SD & REDSO/ESA: *Topic Briefing: An introduction to Environmental Assessment* for USAID Environmental Officers and USAID Mission Partners, November 2002, Updated January 2005. Funded by U.S. Agency for International Development (AFR/SD&REDSO/ESA); Compiled by Mark Stoughton, Weston Fisher, Capacity for Impact Assessment & Management Program, The Cadmus Group

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U.S. Agency for International Development, *Environmental Guide for Small-Scale Activities in Africa (EGSSAA)*, second edition, draft May 2003



Table 4: Evaluation of Activity/Program Issues with Respect to Environmental Impact Potential

Type of activities	Potential impact	Proposed mitigations	Monitoring indicator	Expected determination	Role/responsibility
<b>SO1: Livelihood capacities of targeted households are protected and enhanced</b>					
IR 1.1 Producers are managing sustainable agro-enterprises	<ul style="list-style-type: none"> <li>Adverse impact include soil erosion, overgrazing, extensive farming/soil mining, and possible conflicts among the population</li> </ul> <p>Access to equipment /tools from small grants could lead to adverse impact on environment (soil erosion, wastes from processing)</p>	<ul style="list-style-type: none"> <li>Follow up with farmers after training to ensure proper application of techniques including natural resource management, such as composting, green manure, farm yard manure, and waste disposal from processing</li> </ul>	<ul style="list-style-type: none"> <li>Degradation of natural resources is prevented or reduced to a practicable minimum</li> </ul>	ND with conditions 216.3 (a)(2)(iii)	<ul style="list-style-type: none"> <li>CS assures that the training partner has followed up with farmers in the field for a proper application of techniques and use of equipment/tools</li> </ul>
		<ul style="list-style-type: none"> <li>Sensitize and support community to develop their own regulations in favor of protecting their natural resources</li> </ul>	<ul style="list-style-type: none"> <li>No overgrazing</li> </ul>		<ul style="list-style-type: none"> <li>CS assures that the implementing partner has worked this out with the community</li> </ul>
		<ul style="list-style-type: none"> <li>Support the creation of a committee for preventing and managing conflicts/ crisis in the community</li> </ul>	<ul style="list-style-type: none"> <li>Conflicts are limited and effectively managed</li> </ul>		<ul style="list-style-type: none"> <li>CS assures that the implementing partner has worked this out with the community</li> </ul>
Training activities (marketing, and improved production techniques	No adverse impact expected with best practices	None	<ul style="list-style-type: none"> <li>At least 80% farmers applying improved techniques</li> </ul>	CE 216.2 (c) (2) (i) Without conditions	CS identifies qualified trainer for the targeted communities
Training in functional literacy	No adverse impact expected with best practices	None	<ul style="list-style-type: none"> <li>At least 50% of targeted farmers can</li> </ul>	CE 216.2 (c) (2) (i) Without conditions	CS identifies qualified trainer for the targeted communities

Type of activities	Potential impact	Proposed mitigations	Monitoring indicator	Expected determination	Role/ responsibility
Training in good governance	No adverse impact expected with best practices	None	<ul style="list-style-type: none"> <li>read and write</li> <li>Farmers' groups are formed, well organized, and managed according to transparency and democratic principles</li> </ul>	CE 216.2 (c) (2) (i) Without conditions	CS identifies qualified trainer for the targeted communities
IR1.2 Targeted Households are managing their revenues more effectively (SILC approach)	No adverse impact with best practices	None	None	CE 216.2 (c)(2)(i)	The training partner is responsible for this IR
<b>SO2: Human capabilities of women of child-bearing age, children under 5, primary school students, are protected and enhanced.</b>					
IR2.1 Caregivers and pregnant and lactating women are applying improved nutrition and feeding practices.	Mainly a training activity	No mitigation needed	<ul style="list-style-type: none"> <li>No avitaminosis for pregnant women is reported</li> <li>Malnutrition for children under five is reduced</li> <li>The household environment is clean and healthy</li> </ul>	CE 216.2 (c) (2) (xi)	CS is responsible for training and follow up in the field
IR 2.2. Caregivers use improved hygiene and sanitation practices	Poor hygiene and sanitation conditions could occur even when toilet facilities are available	<ul style="list-style-type: none"> <li>Periodic training, sensitization, and demonstration sessions, especially at the beginning would be necessary</li> </ul>	<ul style="list-style-type: none"> <li>Reports of soil erosion and flooding are</li> </ul>	ND with conditions 216.3 (a)(2)(iii)	The teachers, PTAs, and school management committees are jointly in charge
<b>SO3: Resiliency of targeted communities is protected and enhanced</b>					
IR 3.1 Communities are implementing strategies to reduce the effects of shocks	Rehabilitate water conservation infrastructures (dykes, bunds, low lands, irrigated perimeters)	<ul style="list-style-type: none"> <li>Soil erosion</li> <li>Flooding</li> </ul>	<ul style="list-style-type: none"> <li>Reports of soil erosion and flooding are</li> </ul>	ND with conditions 216.3 (a)(2)(iii)	The CS identifies qualified engineering service providers and follows up with them to

<sup>6</sup> As recommended in the USAID document referred to as Environmental Guidance for Small Scale Activities in Africa (EGSSAA) Part II, Chapter 1 (Tables 2-3, 2-4),

Type of activities	Potential impact	Proposed mitigations	Monitoring indicator	Expected determination	Role/ responsibility
	<ul style="list-style-type: none"> <li>• Crop losses</li> <li>• Revenue loss</li> </ul>	techniques	limited		ensure quality of services.
	<ul style="list-style-type: none"> <li>• Water borne diseases</li> </ul>	<ul style="list-style-type: none"> <li>• Good maintenance and repairs</li> <li>• Sensitize beneficiaries</li> <li>• Encourage use of boots and mosquito bed nets</li> </ul>	<ul style="list-style-type: none"> <li>• % of people suffering from water borne diseases is reduced</li> </ul>		The CS assures sensitization of the beneficiaries and these in turn are responsible for the maintenance/repairs
Promote market gardening	Soil erosion, increased runoff, nutrient losses	Plant shrubs/ trees along hedges and in marginal areas; application of best practices in soil/ water management techniques	Erosion is prevented or reduced to a practicable minimum	<b>ND with conditions</b> 216.3 (a)(2)(iii)	The implementing partner is responsible for sensitizing and following up.  The beneficiaries are responsible for establishing the vegetation cover
Stabilization of sand dunes	No adverse impact	Apply Best Practices  Ref: Institut d'Economie Rurale (IER), and in the USAID Environment Guidance for Small-Scale Agriculture Activities (EGSSA)	Sand dunes are established	<b>ND with conditions</b> 216.3 (a)(2)(iii)	The CS is responsible for monitoring the implementing partner The implementing partner is responsible for sensitizing and following up.  The beneficiaries are responsible for establishing the sand dunes  The CS is responsible for monitoring the implementing partner

Type of activities	Potential impact	Proposed mitigations	Monitoring indicator	Expected determination	Role/responsibility
Reforestation	No adverse impact	Apply Best Practices  Ref: Institut d'Economie Rurale (IER), and in the USAID Environment Guidance for Small-Scale Agriculture Activities (EGSSA)	Vegetation cover is established	<b>ND with conditions</b> 216.3 (a)(2)(iii)	The implementing partner is responsible for sensitizing and following up.  The beneficiaries are responsible for establishing the vegetation cover
Soil restoration	No adverse impact	Apply Best Practices  Ref: Institut d'Economie Rurale (IER), and in the USAID Environment Guidance for Small-Scale Agriculture Activities (EGSSA)	Soil is restored	<b>ND with conditions</b> 216.3 (a)(2)(iii)	The CS is responsible for monitoring the implementing partner The implementing partner is responsible for sensitizing and following up.  The beneficiaries are responsible for restoring the soils
Regeneration of natural pasturelands called "bourgoutieres"	No adverse impact	Apply Best Practices  Ref: Institut d'Economie Rurale (IER), and in the USAID Environment Guidance for Small-Scale Agriculture Activities (EGSSA)	Natural pasturelands are regenerated	<b>ND with conditions</b> 216.3 (a)(2)(iii)	The CS is responsible for monitoring the implementing partner The implementing partner is responsible for sensitizing and following up.  The beneficiaries are responsible for establishing the natural pasture lands
Build new water conservation infrastructures (dykes, bunds, "bourgoutieres")	<ul style="list-style-type: none"> <li>Not enough</li> </ul>	- Activities will be subjected to an environmental screening	None for the moment	<b>ND with conditions</b> 216.3 (a)(2)(iii)	The CS is responsible for monitoring the implementing partner The CS responsible for environmental screening

Type of activities	Potential impact	Proposed mitigations	Monitoring indicator	Expected determination	Role/ responsibility
low lands)	information available at this stage as the sites or scale/ scope of most activities have yet to be defined	<p>process intended to identify potential environmental problems, appropriate mitigation measures, and to trigger supplemental environmental review if appropriate. The process will follow the Environmental Screening Report format found in Part III, Chapter 6, Annex A of the EGSSA (<a href="http://www.encapafrika.org/egssaa.htm">http://www.encapafrika.org/egssaa.htm</a>).</p> <ul style="list-style-type: none"> <li>- Mitigation measures and monitoring procedures identified during this review will be considered as requirements.</li> <li>- Any activity identified as having potentially significant impacts will require an amendment to this IEE and no such activity will proceed until the amendment has been approved.</li> </ul>			
New irrigated perimeters and small rural feeder roads	<ul style="list-style-type: none"> <li>• Not enough information available at this stage as the sites or scale/ scope of most activities have yet to be defined</li> </ul>	Same as previous activity	None for the moment	<b>ND with conditions</b> 216.3 (a)(2)(iii)	The CS responsible for environmental screening.
Train early warning groups in monitoring of early warning	<ul style="list-style-type: none"> <li>• Mainly a training activity</li> </ul>	No mitigation needed	# of groups monitoring early warning indicators	<b>CE 216.2 (c )(2) (xi)</b>	CS is responsible for training and follow up in the field

Type of activities	Potential impact	Proposed mitigations	Monitoring indicator	Expected determination	Role/responsibility
indicators IR 3.2 Local partners are providing safety net services to the most vulnerable members in targeted communities	None	No mitigation needed	None	CE 216.3 (a)(2)(viii)	The CS monitors the implementing partner

### Monetization of crude oil

Monetization (non programmatic activity)	Selling crude oil might lead to waste disposal problems (by-products) by oil refiners	<ul style="list-style-type: none"> <li>Sensitize and have Ministry of environment inspect waste disposal mechanism prior to sales</li> <li>Monitor to ensure proper disposal is taking place before renewal of sales</li> </ul>	<ul style="list-style-type: none"> <li>No problems pertaining to disposal of crude oil waste is reported</li> </ul>	NID with conditions 216.3 (a)(2)(iii)	The CS <sup>7</sup> is responsible for implementing the mitigation plans
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<sup>7</sup> CS stands for Cooperating Sponsors

Table 5: Summary Table: Synopsis of Environmental Decisions for CRS' MYAP Activities

Types of Activities	Geographic distribution, Location	Sites/Projects (number, geographic division)	Scale & Quantity of Activity	Unit (ha, etc)	% of T II (over LOA) <sup>8</sup>	Expected Determinations (eg,CE,ND PD)
SO1: Livelihood capacities of targeted households are protected and enhanced by 2013						
Intermediate Results 1.1: Producers manage sustainable agro-enterprises.						
1. Establish AE groups (gps) and train in governance	Mopti & Gao	Douentza, Bourem	20 groups in Y1 and 55 in Y2	groups		ND with conditions 216.3 (a)(2)(iii)
2. Conduct participatory market chain analysis	Mopti & Gao	Douentza, Bourem	20 groups in Y1 and 55 in Y2	groups		
3. Train AE gps in marketing skill	Mopti & Gao	Douentza, Bourem	20 groups in Y1 and 55 in Y2			CE 216.2 (c) (2) (i) Without conditions
4. Train AE gps in improved production techniques (FFS)	Mopti & Gao	Douentza, Bourem	4 Y2 11 Y3			
5. Train AE gps in savings and internal lending (SILC)	Mopti & Gao	Douentza, Bourem	20 Y2, 22Y3 , 33 Y4	groups		CE 216.2 (c) (2) (i) Without conditions
7. Provide financial contribution to AE gps for capital investment	Mopti & Gao	Douentza, Bourem	20 Y2, 55 Y 3		16%	
8. Train literacy trainers and refresher course	Mopti & Gao	Douentza, Bourem	260 Y2, 260 Y 3	trainers		CE 216.2 (c) (2) (i) Without conditions
9. Conduct functional literacy classes and refresher courses	Mopti & Gao	Douentza, Bourem	260 (Y2- Y5)	Literacy trainers	3%	
IR1. 2: Targeted households manage their revenues more effectively						
1. Establish and train new gps in SILC methodology	Mopti & Gao		20 Y2, 20Y3 20 Y5			CE 216.2 (c) (2) (i)
2. Mentor SILC gps in the application of their new skills	Mopti & Gao		20 Y2, 20Y3 20 Y5			
3. Train field agents to support new SILC gps	Mopti & Gao		21 Y2, 20Y3 20 Y5			
4. Supervise field agents in their creation and mentoring of new SILC gps	Mopti & Gao				3%	
SO1 Total %					22%	
SO2: Human capabilities of targeted households are protected and enhanced by 2013						

<sup>8</sup> Note that percentages in this column are different from the ones in the Comprehensive Budget and the Summary Request Table because FFW activities are included in the Agriculture/Natural Resource Management in those tables but is included under Emergency Preparedness in this table (according to the SOs of the Proposal).

**IR2.1. Caregivers of children under 5 and pregnant and lactating women apply improved nutrition and feeding practices**

CE 216.2 (c )(2) (xi)

2.1.1.1. Train district level medical staff in community-based therapeutic care (CTS) of acute malnutrition and essential nutrition activities (ENA) messages	Mopti & Gao	Douentza, Bourem	15 Y1, 10 Y 3	health staff
2.1.1.2. Train commune level medical post heads in CTC and ENA	Mopti & Gao	Douentza, Bourem	35 Y1, 25 Y3	Persons
2.1.1.3. Train commune level medical staff in CTC and ENA	Mopti & Gao	Douentza, Bourem	105 Y1 79 Y3	Persons
2.1.1.4. Train village health volunteers in diagnosis and referral of malnutrition cases and ENA messages	Mopti & Gao	Douentza, Bourem	650 Y1, 650 Y3	Persons
2.1.1.5. Develop IEC materials for use in health centers and by community health volunteers	Mopti & Gao	Douentza, Bourem		
2.1.1.6. Monthly identification of malnutrition cases through MUAC	Mopti & Gao	Douentza, Bourem	130 (Y1- Y5)	
2.1.1.7. Equip health centers with materials for treatment of acute malnutrition	Mopti & Gao	Douentza, Bourem	3Y1, 17 Y2, 15 Y3, 10 Y5	Health centers
2.1.1.8. Conduct cooking demonstrations for home preparation of complementary foods to treat acute malnutrition	Mopti & Gao	Douentza, Bourem	35 (Y1- Y5)	demonstrations
2.1.1.9. Provide wet and take home rations of complementary food for the rehabilitation of acute malnutrition, protection ration for families of treated children at health centers	Mopti & Gao	Douentza, Bourem		
2.1.1.10. Identify eligible villages for Hearth and conduct positive deviance inquiry	Mopti & Gao	Douentza, Bourem	15 (Y2-Y4)	Village
2.1.1.11. Train village health committees (VHC) and volunteer mothers (VM) in Hearth methodology	Mopti & Gao	Douentza, Bourem	15VH/60 VM(Y2-Y4)	Committee
2.1.1.12. Mentor VHC and VM in Hearth methodology	Mopti & Gao	Douentza, Bourem		
2.1.1.13. Conduct 2-4 week Hearth sessions, followed by 2 weeks of home visits to participants	Mopti & Gao	Douentza, Bourem		
2.1.1.14. Conduct behavior change barrier analysis of participating care givers	Mopti & Gao	Douentza, Bourem	15 (Y2-Y4)	Village
2.1.1.15. Train VM and health committees in behavior change communication and conduct campaigns	Mopti & Gao	Douentza, Bourem		
2.1.1.16. Recognize VM publicly for their leadership in Hearth activities	Mopti & Gao	Douentza, Bourem		
2.1.1.17. Train community radio animators in ENA messages and management of acute malnutrition	Mopti & Gao	Douentza, Bourem		
2.1.1.18. Develop and record radio messages in local languages	Mopti & Gao	Douentza, Bourem		

22%



2.1.19. Diffuse radio messages throughout target zones	Mopti & Gao	Douentza, Bourem	11(Y2-Y5)	radio	CE 216.2 (c )(2) (xi)			
2.1.20. Create and support village radio listening gps	Mopti & Gao	Douentza, Bourem						
IR2.2. Caregivers of children under 5 apply improved hygiene and sanitation practices								
2.2.1. Develop and diffuse radio messages on hygiene/sanitation	Mopti & Gao	Douentza, Bourem	40 Lat &4 macons Y3,110 L &18m Y4, 110 L &18m Y5	Latrines, Masons		ND with conditions 216.3 (a)(2)(iii)		
2.2.2. Train caregivers in hygiene/sanitation	Mopti & Gao	Douentza, Bourem						
2.2.3. Build Fossa Alterna latrines and train local masons	Mopti & Gao	Douentza, Bourem						
2.2.4. Monitor use of latrines and replication in other households	Mopti & Gao	Douentza, Bourem					150 Y4, 260 Y5	Latrines
2.2.5. Train caregivers in integrated water management	Mopti & Gao	Douentza, Bourem					130 Y5	Committee
SO2 % Total			24%					
SO3 Resiliency of targeted communities is protected and enhanced by 2013								
IR.3.1. Communities implement strategies to reduce the effects of shocks								
3.1.1. Train technical commissions FFW priorities and eligibility criteria		Douentza, Bourem	20 Y2, 20 Y3	commission	ND with conditions 216.3 (a)(2)(iii)			
3.1.2. Solicit applications and elect FFW community projects	Mopti & Gao	Douentza, Bourem	130 (Y2- Y5)	application				
3.1.3. Conduct FFW projects	Mopti & Gao	Douentza, Bourem						
3.1.4. Distribute food rations to FFW participants	Mopti & Gao	Douentza, Bourem	130 (Y2- Y5)	project				
3.1.5. Establish and train community Early Warning Group (EWG)		Douentza, Bourem	130 (Y2- Y5)	participants				
3.1.6. EWG identify early warning indicators	Mopti & Gao	Douentza, Bourem						
3.1.7. EWG identify local response mechanisms	Mopti & Gao	Douentza, Bourem						
3.1.8. Provide equipment and operating costs to EWG for indicator monitoring	Mopti & Gao	Douentza, Bourem	20 Y1, 110 Y2, 130 (Y3-Y5)	groups				
3.1.9. Monitor early warning indicators	Mopti & Gao	Douentza, Bourem						
3.1.10. Link EWG with Systeme d'Alerte Precoce	Mopti & Gao	Douentza, Bourem	130 (Y1- Y5)	groups				
3.1.11. Conduct Workshops to update commune-level food security plans		Douentza, Bourem						
Subtotal %	Mopti & Gao	Douentza, Bourem				52%		
IR3.2. Most vulnerable community members receive unconditional safety nets								
3.2.1. Distribute safety net rations during the hungry season					2%			

SO3 Total %	54%									
GRAND TOTAL										100%

